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FOSTER, JUSTIN B

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

Office Action Summary	Application No.	Applicant(s)
	09/597,403	MORO ET AL.
	Examiner	Art Unit
	Justin Foster	2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____.

2a) ☐ This action is **FINAL**.　　2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-86_ is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-86_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a) ☐ All b) ☐ Some * c) ☐ None of:

　　　1. ☒ Certified copies of the priority documents have been received.

　　　2. ☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

　　a) ☐ The translation of the foreign language provisional application has been received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 101

1.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2.   Claims 1-9, 11-41, 49-56, 58-74, 76-81, and 83-86 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. With regard to claims 1-3, the database is not tangibly embodied on a computer readable medium. Also, the claimed invention is non-functional descriptive material.

3.   With regard to claims 4 and 8-9, the invention is not tied to the technological arts, it is not a computerized method.

4.   With regard to claims 5-7, 11-41, 49-56, 58-74, 76-81, and 83-86, the invention is software per se, and is therefore non-statutory.

Claim Rejections - 35 USC § 112

5.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6.   Claims 42-48 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. With regard to claims 42-48, it is unclear how a computer program would make a computer implement storage means.

Claim Rejections - 35 USC § 102

7.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8.   Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Ng, *et al.*

(5,739,841). With regard to claim 1, Ng discloses a database (figure 4) comprising a first table

("BIN LUT", figure 4) for storing keys ("data representing the tables", column 6, lines 49-53)

and look-up table identifiers ("the output ... identifies a certain LED", column 6, lines 55-57) in

correspondence with each other; and a second table ("COR LUT", figure 4) for storing the look-

up table identifiers ("8-bit bin value number, column 7, lines 23-25) and look-up tables ("32 sub-

tables", column 7, lines 30-32) in correspondence with each other, and in that the look-up table

can be searched via the look-up table identifier corresponding to the designated key (inherent

from "a respective 8-bit data output signal is provided representing a bin value number", column

7, lines 17-20).

9.   With regard to claim 2, Ng discloses the invention as stated in claim 1. Ng further

discloses wherein said first table stores a plurality of look-up table identifiers for each key

(inherent since a 12-bit counter is used as the identifier and 12 bits presents a plurality of

choices, column 6, lines 53-57), and said second table stores the look-up tables in one-to-one

correspondence with the look-up table identifiers (inherent from "contains correction data for

each of the 16 grey levels at each of the 256 brightness bin values at each of the 32

electrophotographic conditions, column 7, lines 30-34).

10.   With regard to claim 3, Ng discloses the invention as stated in claim 2. Ng further

discloses wherein said first table stores, as each key, a print mode including print quality

(inherent from "data representing the tables" since the tables control print quality through

correction data), a look-up table identifier of a correction table (inherent from "the output of the

counter ... identifies a certain LED", which is input to COR LUT storing correction tables) and

said second table stores the look-up tables corresponding to the look-up table identifiers stored in

said first table (inherent from "contains correction data for each of the 16 grey levels at each of

the 256 brightness bin values at each of the 32 electrophotographic conditions", column 7, lines

30-34).

11.   With regard to claim 4, Ng discloses a database management method comprising the

search step of searching the first table in a database of claim 3 (inherent from "a respective 8-bit

data output signal is provided representing a bin value number", column 7, lines 17-20) for a

look-up table identifier corresponding to a designated print mode ("the output ... identifies a

certain LED", column 6, lines 55-57) and the table acquisition step of acquiring a look-up table

corresponding to the look-up table identifier acquired in the search step from said second table

(inherent from "load newly calculated correction parameters", column 7, lines 34-39).

12.   With regard to claim 5, Ng discloses an apparatus (figure 4) comprising a first and second

table from the database of claim 1, and a search means and table acquisition means from claim 4.

The above rejections to claims 1 and 4 are incorporated herein. Ng further discloses image

processing means for processing image data using the acquired look-up table (inherent from "the

table contains correction data", column 7, line 32).

13.   With regard to claim 6, Ng discloses the invention as stated in claim 5. The additional

limitations to the apparatus of claim 6 correspond to the limitations to the database of claim 3,

and accordingly the above rejection to claim 3 is incorporated herein.

14.   With regard to claim 7, Ng discloses the invention as stated in claim 5. Ng further

discloses output means for outputting the image data processed by said image processing means

("there is output ... corrected image data", column 7, lines 45-47).

15.   With regard to claim 8, Ng discloses a method corresponding to the apparatus of claim 5.

As such, the above rejection to claim 5 is incorporated herein.

16.   With regard to claim 9, Ng discloses the invention as stated in claim 8. The further

limitations to the method of claim 9 correspond to the additional limitations to the apparatus of

claim 6. As such, the above rejection to claim 6 is incorporated herein.

17.   With regard to claim 10, Ng discloses a computer readable storage medium ("RAM",

column 6, line 47) characterized by storing a computer program which makes a computer

implement a search means, table acquisition means, and image processing means corresponding

to the apparatus of claim 5. The above rejection to claim 5, is incorporated herein.

18.   Claims 11-12, 14-18, 20-23 and 25-27 are rejected under 35 U.S.C. 102(b) as being

anticipated by Stokes, *et al.* (5,687,301). With regard to claim 11, Stokes discloses an

information processing apparatus (figure 1) comprising a processing module (host computer 10,

figure 1) and a database corresponding to a given apparatus ("AppFlag database 21", column 3,

line 17), and in that said processing module has a search unit (inherent from "AppFlags database

is searched", column 4, line 52) in which information used to access the database corresponding

to the selected apparatus is set.

19.   With regard to claim 12, Stokes discloses the invention as stated in claim 11. Stokes

further discloses wherein the apparatus is a printer (printer 12, figure 1).

20.   With regard to claim 14, Stokes discloses the invention as stated in claim 11. The

processing module can inherently act as an image processing module and a binary processing

module.

21.   With regard to claim 15, Stokes discloses the invention as stated in claim 11. Stokes

further discloses wherein a plurality of processing modules equivalent to said processing

modules are present ("random access memory ... is segmented into a number of portions ... for

controlling the host computer's application", column 2, lines 41-43).

22.   With regard to claim 16, Stokes discloses the invention as stated in claim 11. Stokes

further discloses wherein a plurality of databases equivalent to said database ("external database"

and "above hardcoded list", column 4, lines 32-33).

23.   With regard to claim 17-18 and 20-22, said claims are the method claims corresponding

to apparatus claims 11-12 and 14-16 respectively. The method claims are inherent and included

by the operation of the apparatus claims. The grounds of rejection for claims 11-12 and 14-16

are, therefore, repeated here.

24.   With regard to claims 23 and 25-27, said claims are directed towards a print driver with

the limitations of the apparatus claims 11 and 14-16 respectively. Stokes discloses a use as a

printer driver ("printer driver functions", column 2, line 44). The further limitations correspond

to the limitations of apparatus claims 11 and 14-16. As such, the grounds for rejection of these

claims are repeated here.

25.   Claims 28-31, 35-38 and 42-45 are rejected under 35 U.S.C. 102(b) as being anticipated

by Kumada (EP 0881826). With regard to claim 28, Kumada discloses a print control apparatus

(figure 1) for executing an image process in accordance with an output apparatus ("image

processing apparatus", column 9, line 7), comprising generation means for generating a look-up

table ("the output profile reader 3 reads output profile data", column 10, lines 4-5, "a profile has

... a table", colun 10, lines 28-31) according to characteristic information of the output apparatus

("corresponding to the output device", column 10, lines 5-6); storage means for storing the

generated look-up table ("the output profile memory ... stores plural items of output profile

data", column 10, lines 16-18) in correspondence with an identifier of the output apparatus ("a

profile has a header in which basic information relating to various profiles is described", column

10, lines 28-29); and image processing means ("information describes color processing

parameters", column 10, lines 35-36) for executing a process such as correction, conversion, or

the like for image data ("converting image data", column 10, line 37) using the look-up table

corresponding to the identifier (inherently from "header stores ID information", column 10, line

31).

26.   With regard to claim 29, Kumada discloses the invention as stated in claim 28. Kumada

further discloses input means for inputting the characteristic information ("a signal ... which

indicates from which type of output device an output is produced ... enter[s] an output profile

reader", column 9, line 53 through column 10, line 2), and in that said generation means

generates the look-up table in accordance with the input characteristic information ("which

corresponds to the particular type, and various settings of the output device", column 10, lines 4-

7).

27.   With regard to claim 30, Kumada discloses the invention as stated in claim 28. Kumada

further discloses acquisition means for acquiring the characteristic information on the basis of

predetermined image data ("the output profile reader 3 reads output profile data out of an output

profile memory", column 10, lines 2-4), and a measurement result of density information or the

like that pertains to an output image of the image data ("a signal indicating resolution", column

9, lines 57-58), and in that said generation means generates the look-up table in accordance with

the acquired characteristic information ("the output profile data describes the output

characteristic", column 10, lines 4-5).

28.   With regard to claim 31, Kumada discloses the invention as stated in claim 28. Kumada

further discloses wherein the look-up table includes a look-up table for grayscale correction

(inherent from "color processing parameters", column 10, line 40 when image data is grayscale).

29.   With regard to claims 35-38, these claims are method claims corresponding to the

apparatus claims 28-31. The method claims are inherent and included by the operation of the

apparatus claims. Accordingly, the grounds of rejection listed above for claims 28-31 are

repeated here.

30.   With regard to claims 42-45, these claims are directed towards a computer readable

storage medium characterized by storing a computer program which make a computer implement

the method of claims 35-38. Kumada discloses a CPU (CPU 111, figure 1) that controls the

operation of the system. The further limitations of claims 42-45 correspond to the method claims

35-38. Accordingly, the grounds of rejection listed above for claims 35-38 are repeated here.

31.   Claims 49-51, 53-55 and 57-75 are rejected under 35 U.S.C. 102(b) as being anticipated

by Vijaykumar (5,499,359). With regard to claim 49, Vijaykumar discloses a link information

search apparatus (figure 1A), comprising changed value storage means for storing changed information ("information is represented in tables ... making it easy for a user to examine or change data", column 7, lines 10-14); current value storage means for storing unchanged information (inherent that unchanged information would be stored); link information storage means for storing link information required for optimizing the unchanged information upon the change ("primary key to identify table entries", column 7, lines 61-62); reference information determination means for determining link information to be referred to for the optimization ("define a referential relationship between two tables", column 13, line 48); extraction condition setting means for setting a condition required for extraction link information from said link information storage means ("unique pointers to the actual storage location of each record", column 8, line 49); and setup value information replace means for updating information stored in said current value storage means on the basis of the extracted link information ("the system updates the index file whenever the user updates the table", column 9, lines 24-25).

32.   With regard to claim 50, Vijaykumar discloses the invention as stated in claim 49. Vijaykumar further discloses wherein the link information is stored while being classified in units of setup contents ("by employing one or more database indexes, the records of a table can be organized in many different ways", column 8, lines 30-31).

33.   With regard to claim 51, Vijaykumar discloses the invention as stated in claim 49. Vijaykumar further discloses wherein the condition required for extracting the link information is stored in units of classified setup contents ("an index organizes [logically] the records in a database", column 8, lines 53-57).

34.   With regard to claim 53-55, these are method claims corresponding to the apparatus

claims 49-51. The method claims are inherent and included by the operation of the apparatus

above. Accordingly, the grounds of rejection presented above for claims 49-51 are repeated

here.

35.   With regard to claim 57, Vijaykumar discloses a computer readable storage medium

(memory 102, figure 1A) storing a program. The further limitations of this claim correspond to

the method claim 53. Accordingly, the grounds for rejection of claim 53 are repeated here.

36.   With regard to claim 58, Vijaykumar discloses an image processing apparatus (figure

1A), comprising means for searching for a link condition on the basis of a link information

search apparatus of claim 49 (inherent from "an index may greatly speed up searching", column

8, lines 56-57), and offering a condition that can be set in accordance with the search result ("the

system updates the index file whenever the user updates the table", column 9, lines 24-25).

37.   With regard to claim 59, Vijaykumar discloses the invention as stated in claim 58.

Vijaykumar further discloses wherein said image processing apparatus includes a printer

(printing device 108, figure 1A). It is known in the art that a facsimile apparatus can be used as

an output comparable to a printer. It would have been obvious to one of ordinary skill in the art

at the time the invention was made for the image processing apparatus to include a printer and

facsimile apparatus. This would provide increased functionality with the additional facsimile

output device.

38.   With regard to claim 60, this claim is a method claim corresponding to the apparatus

claim 58. The method is inherent and included by the operation of the apparatus. Accordingly,

the grounds of rejection for claim 58 are repeated here.

39.   With regard to claim 61, Vijaykumar discloses the invention as stated in claim 49.

Vijaykumar further discloses the apparatus comprising extraction means for extracting link

information on the basis of the link information to be referred to ("unique pointers to the actual

storage location of each record", column 8, line 49), which is determined by said reference

information determination means, and data of the extraction condition set by said extraction

condition setting means.

40.   With regard to claim 62, Vijaykumar further discloses display means (display device

106) for displaying a setup value by changing the setup value to a setup value replaced by said

setup value information replace means.

41.   With regard to claim 63, it is inherent that an unselectable setup value will be displayed

to be unselectable and a selectable setup value will be displayed to be selectable in accordance

with the extracted link. The selectability or unselectability of a setup value is necessarily

displayed in order for the user to use the interface properly.

42.   With regard to claim 64, Vijaykumar discloses a link information setting apparatus

(figure 1A), comprising acquisition means for acquiring an ID of a link information storage

section ("primary key to identify table entries", column 7, line 62) corresponding to a changed

item; setting means for setting an extraction condition of the link information storage section

having the acquired ID ("unique pointers to the actual storage location of each record", column

8, line 49); extraction means for extracting link information from the libnk information storage

section having the acquired ID in accordance with the set extraction condition ("unique pointers

to the actual storage location of each record", column 8, line 49); and change means for changing

a setup value when the setup value is different from the extracted link information ("information

is represented in tables ... making it easy for a user to examine or change data", column 7, lines 10-14).

43.   With regard to claim 65, it is inherent that an unselectable setup value will be displayed to be unselectable and a selectable setup value will be displayed to be selectable in accordance with the extracted link information. The selectability or unselectability of a setup value is necessarily displayed in order for the user to use the interface properly.

44.   With regard to claim 66, it is inherent that the link information includes an appropriate setup value since an appropriate value is required for successful operation of the apparatus.

45.   With regard to claim 67, it is inherent that the link information has a setup item and setup value since an appropriate value is required for successful operation of the apparatus. Vijaykumar further discloses processing contents (central processor 101, figure 1A).

46.   With regard to claim 68-70, these claims are method claims corresponding to the apparatus claims 61-63. The method claims are inherent and included by the operation of the apparatus. Accordingly, the grounds for rejection of claims 61-63 are repeated here.

47.   With regard to claims 71-74, these claims are method claims corresponding to the apparatus claims 64-67. The method claims are inherent and included by the operation of the apparatus. Accordingly, the grounds for rejection of claims 64-67 are repeated here.

48.   With regard to claim 75, Vijaykumar discloses a storage medium storing a program code (main memory 102, figure 1A) for making a computer execute link information setting method. The further limitations of claim 75 correspond to the link information setting method of claim 71. Accordingly, the grounds for rejection of claim 71 are repeated here.

49.   Claims 76-82 are rejected under 35 U.S.C. 102(b) as being anticipated by Rao, *et al.*

(5,613,017). With regard to claim 76, Rao discloses a print control apparatus (figure 1),

comprising storage means (criteria memory 6, figure 1) for storing identification information for

identifying print conditions ("the parameters are criteria for selecting one or more of the output

devices", column 5, lines 47-48), and paper size-dependent parameters based on the

identification information ("sizes of media", column 5, lines 52-53); and margin information

generation means (feature detection unit 3, figure 1) for searching for the stored identification

information and parameters in accordance with print information ("detects the physical features

of the document", column 5, lines 27-29), and generating corresponding margin information

("left, right, top and bottom margins", column 5, line 29).

50.   With regard to claim 77, Rao discloses the invention as stated in claim 76. Rao further

discloses wherein said storage means has an index table for storing ID numbers classified in

units of print conditions, and a data table for storing paper size-dependent margin information in

units of ID numbers ("the document features ... are written under the control of the ACPU into

those addresses of the feature memory which are designated by the feature memory accessing

section", column 12, lines 43-47).

51.   With regard to claim 78, Rao discloses the invention as stated in claim 76. Rao further

discloses wherein said margin information generation means computes vertical and horizontal

printable areas when the print information designates user-defined paper ("left, right, top and

bottom margins", column 5, line 29).

52.   With regard to claims 79-81, these claims are method claims corresponding to apparatus

claims 76-78. The method claims are inherent and included in the operation of the apparatus.

Accordingly, the grounds for rejection of claims 76-78 are repeated here.

53.   With regard to claim 82, Rao discloses a storage medium (control section 13, figure 1)

storing a program for offering margin information for print control. The further limitations of

said program correspond to the method claim 79. Accordingly the grounds for rejection of claim

79 are repeated here.

54.   Claims 83 and 85 are rejected under 35 U.S.C. 102(b) as being anticipated by Hirai, *et al.*

(4,943,936). With regard to claim 83, Hirai discloses a print control apparatus (figure 4)

comprising a first table (format memory 14, figure 4) for storing a search condition ("format

address", column 4, lines 40-41); a second table (page memory 11, figure 4) for storing data of a

value corresponding to the search condition ("print data", column 4, lines 36-37); search means

for searching said first table for the search condition on the basis of a given condition ("one of

the format data entries ... is specified", colu,n 4, lines 41-44), and searching said second table for

data of a value corresponding to the found search condition ("page of print data [is] expanded

into the dot format", column 4, lines 41-44); and table maintenance means for changing the

search condition stored in said first table and changing the value which is stored in said second

table and corresponds to the changed search condition, when the search condition has changed

("writing new format data", column, line 25).

55.   With regard to claim 85, Hirai discloses the invention as stated in claim 83. Hirai further

discloses the apparatus further comprising setting means for setting a print setup value

("combine the print data with the format entry ... thereby configuring page data", column 5,

lines 30-33).

Claim Rejections - 35 USC § 103

56.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

57.   Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stokes, as applied

to claim 11 above, and in further view of Ng. Stokes discloses the invention as stated in claim

11. Stokes does not disclose wherein said database is a database of claim 1. Ng teaches the

database of claim 1 as discussed above. It would have been obvious to one of ordinary skill in

the art at the time the invention was made for the database to be the database of claim 1. This

would improve the system by allowing process conditions to be continually monitored and

correction data updated without delaying the current printing.

58.   Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stokes, as applied

to claim 17 above, and in further view of Ng. Claim 19 is the method claim corresponding to

apparatus claim 13. The method claim is inherent and included by the operation of the

apparatus. Accordingly, the grounds for rejection of claim 13 are repeated here.

59.   Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stokes, as applied

to claim 23 above, and in further view of Ng. The additional limitations to the print driver of

claim 24 correspond to the additional limitations of the apparatus of claim 13. As such, the grounds of rejection for claim 13 above are repeated here.

60.   Claims 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumada, as applied to claim 28 above, and in further view of Ohtsuka, *et al.* (6,145,950). With regard to claim 32, Kumada discloses the invention as stated in claim 28. Kumada does not disclose wherein the output apparatus is a printer apparatus using an exchangeable print head, and the identifier and characteristic information are held in the print head. Ohtsuka teaches a printer apparatus using an exchangeable print head ("printer including ... exchangeable print heads", column 4, lines 39-42) and "identifying means for identifying a type of ink" (column 4, lines 45-46). It would have been obvious to one of ordinary skill in the art at the time the invention was made for the apparatus of Kumada to be a printer apparatus using an exchangeable print head, wherein the identifier and characteristic information are held in the print head. This would allow different print heads to be used and to easily select an appropriate combination of a type of output image, ink and a print medium.

61.   With regard to claim 33, the combination of Kumada and Ohtsuka discloses the invention as stated in claim 32. Ohtsuka further discloses wherein the characteristic information includes rank information indicating an ink ejection state ("different types of ink", column 4, line 42).

62.   Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kumada, as applied to claim 28 above, and in further view of Stokes. Kumada discloses the invention as stated in claim 28. Kumada does not disclose comprising holding means for holding a look-up table generated in advance, and in that when a characteristic of the output apparatus is unknown, said image processing means executes a process for image data using the look-up table held in

said holding means. Stokes teaches, in lines 31-34 of column 4, holding an external database and, in lines 59-63 of column 4, that said external database is used for gathering characteristic information when a generated look-up table does not contain the desired information. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the apparatus of Kumada to further comprise holding means for holding a look-up table generated in advance, and in that when a characteristic of the output apparatus is unknown, said image processing means executes a process for image data using the look-up table held in said holding means.

63.   Claims 39-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumada, as applied to claim 35 above, and in further view of Ohtsuka. Claims 39-40 are method claims corresponding to the apparatus claims 32-33. The method claims are inherent and included by the operation of the apparatus claims. Accordingly, the grounds of rejections listed above for claims 32-33 are repeated here.

64.   Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kumada, as applied to claim 35 above, and in further view of Stokes. Claim 41 is the method claim corresponding to the apparatus claim 34. The method claim is inherent and included by the operation of the apparatus claim. Accordingly, the grounds of rejection listed above for claim 35 are repeated here.

65.   Claims 46-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumada, as applied to claim 42 above and in further view of Ohtsuka. Kumada discloses the invention as stated in claim 42. The further limitations of claims 46-47 correspond to the method claims 39-40. Accordingly, the grounds for rejection of claims 39-40 above are repeated here.

66.   Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kumada, as

applied to claim 42 above, and in further view of Stokes. Kumada discloses the invention as

stated in claim 42. The further limitations of claim 48 correspond to method claim 41.

Accordingly, the grounds for rejection of claim 41 above are repeated here.

67.   Claim 52 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vijaykumar, as

applied to claim 49 above, and in further view of Ng. Vijaykumar discloses the invention as

stated in claim 49. Vijaykumar does not disclose wherein link information to be referred to is

determined to optimize a print result in accordance with change input from input means. Ng

teaches, in lines 59-64 of column 1, optimizing a print result. It would have been obvious to one

of ordinary skill in the art at the time the invention was made wherein link information to be

referred to is determined to optimize a print result in accordance with change input from input

means. This would improve the output of the apparatus by performing color correction.

68.   Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vijaykumar, as

applied to claim 53 above, and in further view of Ng. Claim 56 is a method corresponding to

apparatus claim 52. The method is inherent and included by the operation of the apparatus.

Accordingly, the grounds of rejection for claim 53 are repeated here.

69.   Claim 84 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirai, as applied

to claim 83 above, and in further view of Ng. Hirai discloses the invention as stated in claim 83.

Hirai does not disclose correction means for correcting an image, and in that said search means

searches said first and second tables for a look-up table for image correction, and said correction

means corrects the image with reference to the look-up table. Ng teaches image correction

means, lines 63-64 of column 1, by searching a first and second look-up table (BIN LUT, figure

4 and COR LUT figure 4). It would have been obvious to one of ordinary skill in the art at the time the invention was made for the apparatus to further comprise correction means for correcting an image, and in that said search means searches said first and second tables for a look-up table for image correction, and said correction means corrects the image with reference to the look-up table. This would improve the image output by implementing image correction.

70. Claim 86 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirai, as applied to claim 83 above, and in further view of Rao. Hirai discloses the invention as stated in claim 83 above. Hirai does not disclose margin setting means for setting a print margin, and in that said search means searches said first and second tables for an appropriate print margin, and said margin setting means offers the appropriate print margin to a user. Rao teaches, in lines 26-28, margin setting means appropriate to a user. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the apparatus to further comprise margin setting means for setting a print margin, and in that said search means searches said first and second tables for an appropriate print margin, and said margin setting means offers the appropriate print margin to a user. This would improve the output of a print by properly setting the margins.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin Foster whose telephone number is (703)305-1900. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, David Moore can be reached on (703)308-7452. The fax phone number for the

organization where this application or proceeding is assigned is (703)872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is (703)305-3900.

JF

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